

WO2005036223

Publication Title:

SUPPRESSION OF UNDESIRABLE SIGNAL PROPAGATION MODE(S) DOWNSTREAM OF A MODE CONVERTER

Abstract:

Abstract of WO2005036223

An optical device (D) is dedicated to the transformation of the propagation mode of optical signals. This device comprises at least a first mode converter (3) that is supplied with signals that are propagated in a first guided mode and that delivers the signals in a multimode fibre (4) partly in the first guided mode and partly in a second guided mode of a higher order than the first. The multimode fibre (4) comprises at least first passive filtering means (R) which have the task of converting the first guided mode into at least one dissipative cladding mode in order to prevent or limit the propagation of the signals in this first guided mode while at the same time authorising the propagation of the signals having the second guided mode in the multimode fibre (4).

Data supplied from the esp@cenet database - Worldwide abe

Courtesy of <http://v3.espacenet.com>

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
21 April 2005 (21.04.2005)

PCT

(10) International Publication Number
WO 2005/036223 A1

(51) International Patent Classification⁷: **G02B 6/14** (74) Agents: DOHMEN, Johannes, M., G. et al.; Algemeen Octrooi- en Merkenbureau, P.O. Box 645, NL-5600 AP Eindhoven (NL).

(21) International Application Number:
PCT/EP2004/010980

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:
29 September 2004 (29.09.2004)

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(25) Filing Language: **English**

Published:

— with international search report

(26) Publication Language: **English**

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(30) Priority Data:

03/11589 3 October 2003 (03.10.2003) FR

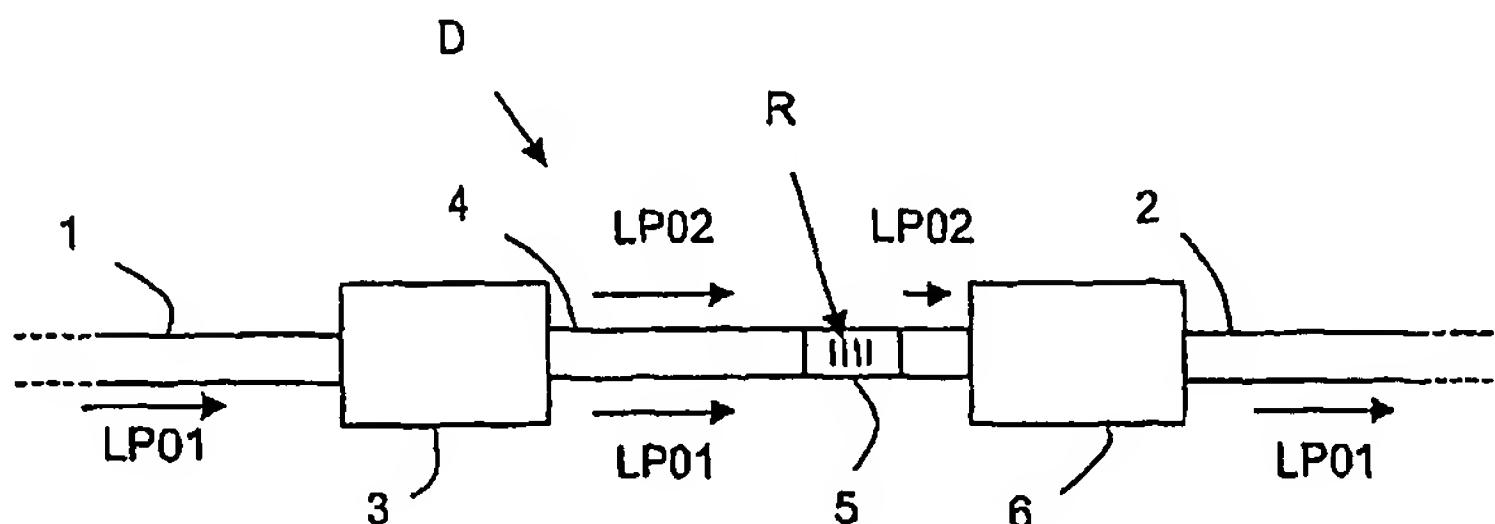
(71) Applicant (for all designated States except US): SOCIETE ANONYME ALCATEL [FR/FR]; 54, rue la Boétie, F-75008 Paris (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): DE BARROS, Carlos [FR/FR]; 85, avenue Edouard-Vaillant, F-92100 Boulogne Billancourt (FR). PROVOST, Lionel [FR/FR]; 54, chemin du Moulin, F-91460 Marcoussis (FR). BONNET, Xavier [FR/FR]; 30, rue Henri Janin, F-78470 Saint Remy les Chevreuse (FR). RIANT, Isabelle [FR/FR]; 21, rue Etienne Bauer, F-91400 Orsay (FR).

(54) Title: SUPPRESSION OF UNDESIRABLE SIGNAL PROPAGATION MODE(S) DOWNSTREAM OF A MODE CONVERTER

WO 2005/036223 A1



(57) Abstract: An optical device (D) is dedicated to the transformation of the propagation mode of optical signals. This device comprises at least a first mode converter (3) that is supplied with signals that are propagated in a first guided mode and that delivers the signals in a multimode fibre (4) partly in the first guided mode and partly in a second guided mode of a higher order than the first. The multimode fibre (4) comprises at least first passive filtering means (R) which have the task of converting the first guided mode into at least one dissipative cladding mode in order to prevent or limit the propagation of the signals in this first guided mode while at the same time authorising the propagation of the signals having the second guided mode in the multimode fibre (4).